



02-06-01

Image  
SGM 6938.1  
PATENT 1637

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Brian Ward et al.

Art Unit 1637

Serial No. 10/002,292

Confirmation No. 2146

Filed November 15, 2001

For RECOMBINANT DNA PROCESS USING dNTP MIXTURE CONTAINING MODIFIED  
NUCLEOTIDES

Examiner Kenneth R. Horlick

February 5, 2004

COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VIRGINIA 22313-1450

SIR:

**LETTER TO THE PATENT AND TRADEMARK OFFICE REGARDING  
INFORMATION DISCLOSURE STATEMENT**

On August 15, 2002, applicants submitted copies of references 34-48, originally cited in the Information Disclosure Statement filed with the Patent and Trademark Office on February 15, 2002.

On February 4, 2004, the undersigned received a call from Examiner Horlick advising that he was unable to locate these fifteen references. Per Examiner Horlick's suggestion, applicants are submitting copies of the documents, including the fifteen references, originally provided to the Office on August 15, 2002.

\* Accordingly, enclosed herewith is a copy of the Letter to the Commissioner dated August 15, 2002, copies of the Information Disclosure Statement and of references 34-48 submitted therewith, a copy of the stamped Post Card indicating the Office's receipt of the August 15, 2002, mailing, and a copy of the Express Mail Label attached to the August 15, 2002, mailing.

Respectfully submitted,

Timothy B. McBride, Reg. No. 47,781  
SENNIGER, POWERS, LEAVITT & ROEDEL  
One Metropolitan Square, 16th Floor  
St. Louis, Missouri 63102  
(314) 231-5400

TBM/sxm

\* Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Brian Ward et al.

Serial No. 10/002,292

Filed November 15, 2001

For RECOMBINANT DNA PROCESS USING DNTP MIXTURE CONTAINING  
MODIFIED NUCLEOTIDES

August 15, 2002

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS,

SIR:

**LETTER TO THE PATENT AND TRADEMARK OFFICE REGARDING  
INFORMATION DISCLOSURE STATEMENT**

On February 15, 2002, applicants submitted an Information Disclosure Statement listing 48 references. Applicants, however, did not have a copy of 15 of these references (references 34-48) available to submit with the Information Disclosure Statement at that time. Applicants now have obtained and have enclosed a copy of the missing references and a copy of the Information Disclosure Statement already submitted with this letter.

Respectfully submitted,

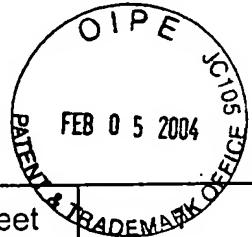
Debra D. Nye, Reg. No. 48,260  
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DDN/sxm  
\*Attachments

Express Mail Label No. EL 945484263 US

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)



Sheet

of

4

Complete if Known	
Application Number	10/002,292
Filing Date	November 15, 2001
Confirmation Number	
First Named Inventor	Brian Ward, et al.
Group Art Unit	
Examiner Name	
Attorney Docket No.	SGM 6938.1

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code <sup>2</sup> (if known)		
	1	6,140,086		Fox, et al.	10-31-2000
	2	5,856,144		Mierendorf, et al.	01-05-1999
	3	5,744,306		Murtagh, Jr., et al	04-28-1998
	4	5,683,869		Shaw, et al.	11-04-1997
	5	5,688,669		Murtagh	11-18-1997
	6	5,659,027		Spielvogel, et al.	08-19-1997
	7	5,604,098		Mead, et al.	02-18-1997
	8	5,595,895		Miki, et al.	01-21-1997
	9	5,594,115		Sharma	01-14-1997
	10	5,580,759		Yang, et al.	12-03-1996
	11	5,523,221		Weiner	06-04-1996
	12	5,518,900		Nikiforov, et al.	05-21-1996
	13	5,518,901		Murtagh	05-21-1996
	14	5,487,993		Herrnstadt, et al.	01-30-1996
	15	5,284,933		Dobeli, et al.	02-08-1994

Examiner Signature	Date Considered
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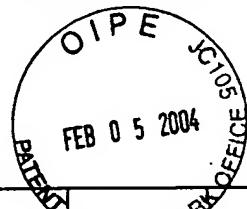
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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*Complete if Known*

			Application Number	10/002,292
			Filing Date	November 15, 2001
			Confirmation Number	
			First Named Inventor	Brian Ward, et al.
			Group Art Unit	
			Examiner Name	
Sheet	of	4	Attorney Docket No.	SGM 6938.1

	16	5,310,663	Dobeli, et al.	05-10-1994
	17	5,260,427	Spielvogel, et al.	11-09-1993
	18	5,075,227	Hagen	12-24-1991
	19	4,851,341	Hopp, et al.	07-25-1989
	20	4,800,159	Mullis, et al.	01-24-1989
	21	4,683,195	Mullis, et al.	07-28-1987
	22	4,683,202	Mullis	07-28-1987
	23	4,682,195	Yilmaz	07-21-1987
	24	4,569,794	Smith, et al.	02-11-1986
	25	4,532,207	Brewer, et al.	07-30-1985
	26	4,521,509	Benkovic, et al.	06-04-1985

**FOREIGN PATENT DOCUMENTS**
**OTHER ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	27	OKADA, ET AL., Efficient directional cloning of recombinant adenovirus vectors using DNA-protein complex, Nucleic Acids Research, 1998, 26(8):1947-1950	
	28	WONG, ET AL., A novel method for producing partial restriction digestion of DNA fragments by PCR with 5-methyl-CTP, Nucleic Acids Research, 1997, 25(20):4169-4171	

Examiner Signature		Date Considered	
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## Complete if Known

Application Number	10/002,292				
Filing Date	November 15, 2001				
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First Named Inventor	Brian Ward, et al.				
Group Art Unit					
Examiner Name					
Sheet	3	of	4	Attorney Docket No.	SGM 6938.1

	29	HSIAO, Exonuclease III induced ligase-free directional subcloning of PCR products, Nucleic Acids Research, 1993, 21(23):5528-5529	
	30	MEAD, ET AL., A universal method for the direct cloning of PCR amplified nucleic acid, Bio/Technology, 1991, 9:657-663	
	31	MARCHUK, ET AL., Construction of T-vectors, a rapid and general system for direct cloning of unmodified PCR products, Nucleic Acids Research, 19(5):1154	
	32	HOLTON, ET AL., A simple and efficient method for direct cloning of PCR products using ddT-tailed vectors, Nucleic Acids Research, 1990, 19(5):1156	
	33	PUTNEY, ET AL., A DNA fragment with an $\alpha$ -phosphorothioate nucleotide at one end is asymmetrically blocked from digestion by exonuclease III and can be replicated <i>in vivo</i> , 1981, 75(12):7350-7354	
	34	PELHAM, ET AL., Eur. J. Biochem, 1976, 67:247	
	35	UHLEN, ET AL., Gene, 1983, 23:369	/
	36	SASSENFELD, ET AL., Bio Technology, 1984, 2:76	/
	37	MELTON, ET AL., Nucleic Acid Res., 1984, 12:7035	/
	38	EVAN, ET AL., Mol. Cell. Biol., 1985, 5:3610-3616	/
	39	LABEIT, ET AL., A new method of DNA sequencing using deoxynucleoside alpha-thiotriphosphates, DNA, 1986, 5(2):173-177	/
	40	DYATKINA, ET AL., Terminating substrates of DNA polymerases: synthesis and functional study, Nucleic Acids Symp. Ser., 1987, 18:117-120	/
	41	LABEIT, ET AL., Meth. Enzymol., 1987, 155:166	/
	42	NAKAMAYE, ET AL., Direct sequencing of polymerase chain reaction amplified DNA fragments through the incorporation of deoxynucleoside alpha-thiotriphosphates, Nucl. Acids Res., 1988, 16(21):9947-9959	

Examiner Signature	Date Considered
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Sheet	4	of	4	Attorney Docket No.	SGM 6938.1
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43	HOPP, ET AL., Biotechnology, 1988, 6:1204
44	SMITH, ET AL., Gene, 1988, 67:31
45	SAIKI, ET AL., Science, 1988, 239:487-491
46	PRICKETT, ET AL., Bio Techniques, 1989, 7:580
47	KOLODZIEJ, ET AL., Methods Enzymol., 1991, 194:508-519
48	KALUZ, ET AL., Nucleic Acids Research, 1992, 20:4369-4370

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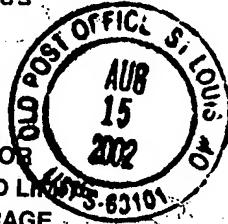
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File **SGM 6938.1**

Attorney **DDN /oxm**

Client Name **Sigma-Aldrich**

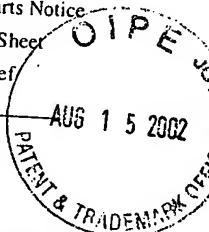
Inventor(s) or Mark **B. WARD et al.**

Serial No. **10/002,292**

Patent/Reg. No. \_\_\_\_\_

The following has been received by the U.S. Patent and Trademark Office on the date stamped hereon:

- Amendment \_\_\_\_\_
- Preliminary Amendment \_\_\_\_\_
- Response to Missing Parts Notice \_\_\_\_\_
- Assignment and Cover Sheet \_\_\_\_\_
- Brief \_\_\_\_\_
- Check \$ \_\_\_\_\_
- Letter to Commissioner \_\_\_\_\_
- RCE Transmittal \_\_\_\_\_
- Maintenance Fee \_\_\_\_\_
- Section \_\_\_\_\_ Declaration
- Other **Copy of 1DS** \_\_\_\_\_
- Other **References (15) numbered 34-48** \_\_\_\_\_



AUG 15 2002

PATENT & TRADEMARK OFFICE